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Data Driven Business Rule Generation Based on Fog Computing

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Abstract

With the rapid development of information technology, the growing number of software products lead to the high demand for software testing, which brings greater pressure and challenge to the software tester. At the same time, huge volumes of test case data which have been accumulated in enterprise information system are not completely used. In order to make full use of these historcial test cases, the following three problems need to be solved:(1) data heterogeneity exists in test cases, (2) data fragmentation for certain function module,(3) network bandwidth pressure. A framework is purposed, which contains five models and a fog computing architecture with multi-layer fusion technology. Standard models are purposed to standardize test cases. The multilevel fusion method are used to deal with scattered data. And using fog computing method can reduce the pressure of server computing and network bandwidth. A test case system is developed to verify the effectiveness of our architecture. The result shows that our system can reduce bandwidth and latency, and help case testers write test cases as well.

Keywords: Fog Computing, Test Cases, Software Engineering, Text Processing

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